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## SPOLIA MENTAWIENSIA.

### Geometridae (Lepidoptera).

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THE working out of the Geometrid part of the valuable collections made by Dr. C. Boden Kloss and Mr. N. Smedley in 1924 on the Mentawi Islands has been entrusted to me, and the following article embodies the result. The general account of the islands, and of their zoogeographical relations with the rest of the Andaman-Engano chain, as well as with the Malay Peninsula, Sumatra, Java and Borneo, which has been given by Chasen and Kloss (*Proc. Zool. Soc. Lond.* 1927, pp. 797-807), should be consulted, and may give clues to a further differentiation of races than I have yet ventured upon. Unfortunately, it is not yet possible to say of the Geometridae, as the authors have said of the mammalian faunas of the islands, that "we know them fairly well" (*loc. cit.*, p. 799); on the contrary, I have been constantly handicapped by the scantiness of the material yet accessible, even in the case of large countries like Sumatra. It has, to be sure, accumulated more rapidly of recent years, thanks largely to the energy of a few workers attached to the local museums, but the time is not yet ripe for any tabulations, or even broad generalisations, such as have been made in the case of the mammalia, etc. I have, however, given in all cases a note as to the hitherto ascertained range of the species, and where it seemed safe have named new races.

The collection, consisting of 69 species, represents in any case a very noteworthy advance in our knowledge. Previously, so far as I am aware, not a single Geometrid had been recorded from the Mentawi Islands, nor had any come under my observation. A few in the Tring Museum from the Batu Islands have long been known to me, but as nothing has been published regarding them I have noticed them in the present report. Unfortunately many of the Mentawi specimens are in more or less damaged condition and either single or in very small numbers. These limitations are, of course, almost inseparable from preliminary surveys over a wide field of zoology (in the present instance also of botany and ethnography), but they militate against secure conclusions in critical cases. It is much to be hoped that at some not very distant date much larger collections will be made of the Lepidoptera in particular, adding numbers of other species to the fauna and rendering possible more exact comparisons with those of the adjacent islands.

All the types of the new forms here described are in the Tring Museum.

## SUBFAM. OENOCHROMINAE.

1. *Heteralex rectilineata* (Guen.).

*Cassyma rectilineata* Guen., *Spec. Gén. Lép.* x. 18 (1858) (Borneo).

Siberut I., September 1924, 1 ♀. Padang, W. Sumatra, November 1924, 1 ♀.

Known previously from Nias, Sumatra, the Malay Peninsula, Borneo, Banguay and Palawan. Not variable.

2. *Eumelea ludovicata* Guen.

♂. *Eumelea ludovicata* Guen., *Spec. Gén. Lép.* ix. 393 (1858) (Ceylon; Central India).

♀. *Eumelea aureliata* Guen., *tom. cit.* 394 (1858) (Ceylon).

This *Eumelea*, besides being the most widely distributed, extending from Ceylon and India to Formosa, the Philippines and the Solomons, shows all kinds of variation—geographical, sexual and individual—and the details of its variation are only very gradually being elucidated. Some fifteen years ago the Rev. C. R. N. Burrows and myself made a preliminary investigation which established its general structural unity throughout its range, but it is not unlikely that a few extraneous elements may still be found amongst its supposed aberrations. A ♂ structural character to which I think attention has not yet been called, and which is serviceable in the determination of doubtful specimens without dissection for the genitalia, is in the remarkable proportions of the terminal spurs of the hind-tibia; the inner spur is extremely short, apparently on the way to becoming atrophied, whereas the outer is unusually lengthened, somewhat surpassing in length the average proximal spurs. Only *rubrifusa* Warr. (1896), which is clearly an offshoot from *ludovicata*, at all approaches it, among the known males, in these proportions. In Seitz (*Macrolep.* xii. 31) the forms inhabiting Celebes and eastward were roughly arranged and named, but the somewhat heterogeneous remainder from India, Malaysia, etc., were left united under Guenée's name. Observations and notes on these have since been accumulating, and it is hoped may ultimately be utilised in a more detailed analysis; but the material from many localities is still inadequate in view of the considerable element of individual inconstancy. As, however, the form from the Batu and Mentawi Islands seems fairly constant and demands some notice in the present memoir, this has been found a suitable opportunity to differentiate it from the two Indian races, and them from one another.

a. *E. l. ludovicata* Guen.

This form, of which the ♂ is well figured by Oberthür (*Et. Lép. Comp.* xii. f. 3302) and the ♀ by Guenée (*Spec. Gén. Lép.*, Atlas, Phal. pl. 22, f. 6), is duller than most, especially in the ♂, which is almost entirely without the rosy or vinaceous shadings and has the yellow patches small and indefinite, the 1st extracellular and often the basal and ternal obsolete (sometimes also the apical), the hindwing generally with very little yellow. Subterminal band narrow, cut by dark dashes on the veins, on the hindwing posteriorly scarcely shown except by vein-spots. ♀ a little more orange-yellow than most of the forms, the purplish markings more grey-mixed. Ceylon and Travancore.

*b. E. l. biclarata* subsp.n.

On an average smaller ( $\sigma$ , 51–54 mm. ;  $\text{♀}$ , 55–60 mm.).  $\sigma$  much brighter, more rosy, with all the yellow patches more or less developed, the 2nd extra-cellular and 2nd submedian (between  $M^2$  and  $SM^2$  outside the 2nd line) commonly extra large and clear, in a measure reminiscent of *biflavata* Warr. ; subterminal band less narrow than in *l. ludovicata*, similarly cut by dark dashes.  $\text{♀}$  rather more variegated than that of *l. ludovicata*, a clearer yellow generally indicating the position of the patches of the  $\sigma$  ; spots on an average more purple than in the name-type. India (excepting the south) and Burma, the type a  $\sigma$  from Sikkim in Mus. Tring.

*b. E. l. referta* subsp.n.

$\sigma$ , 53–58 mm. Similar in coloration to *E. l. biclarata*, all the yellow patches more or less well developed, variably in their relative proportions but with the apical and ternal nearly always conspicuous, the latter as a rule extended forward to  $R^2$  ; 2nd line and subterminal band of forewing generally broadened, often also the darkened costal shading as far as the 2nd blackish spot. Underside also with the purple markings heavy.

Batu Is. : Pullu Tello (I. Z. Kannegieter, C.B.K. and N.S.), 4  $\sigma\sigma$ . Mentawi Is. : Sipora I. (H. H. Karny, C.B.K. and N.S.), 7  $\sigma\sigma$ , including the type.

3. *Eumelea rosalia cacuminis* subsp.n.

$\sigma$ , 49–54 mm. In its size and general coloration comparable to *E. r. aurigenaria* Warr. (Nov. Zool. vi. 15, Lombok, Java, etc.), the ground-colour, even in the distal area, having a good deal of the yellow admixture and allowing the purple lines and band to attain to a fairly definite expression ; lines broader than in *r. aurigenaria*, the 2nd less curved, more proximally placed than in most *aurigenaria* ; further distinguished by the much clearer yellow apical spot of the forewing.

$\text{♀}$ . Larger (the allotype 58 mm.), probably variable, but typically of a rather bright orange appearance, the purple markings on the yellow areas large rather than copious ; lines or bands about as in the  $\sigma$ .

Mentawi : Siberut I., September 1924, 6  $\sigma\sigma$ , 2  $\text{♀♀}$ , including holotype and allotype, the second  $\text{♀}$  a giant (about 68 mm.), much torn, but apparently quite typical ; Sipora I., October 1924, 1  $\sigma$ .

The race from Nias, included by Warren (*loc. cit.*) under *aurigenaria*, resembles *r. cacuminis* in its yellow apex, but will, I think, prove separable on other details.

4. *Eumelea smedleyi* sp.n.

$\sigma$ , 52–56 mm. Very similar to the preceding. Hindtibia smooth (in all forms of *rosalia* fringed with hair), hindtarsus only about  $1\frac{1}{6}$  tibia (in *rosalia*  $1\frac{3}{4}$  to  $1\frac{1}{4}$ ). Further recognizable by the appreciably broader and more rounded wings, particularly noticeable in respect of the apex of forewing and termen of hindwing ; ground-colour showing rather more of the yellow (intermediate towards *rosalia cacuminis*  $\text{♀}$ ), cell-spots, lines and subterminal band more distinct, the 2nd line rather more distal and more curved, the band rather less broad ; apical yellow mark on both wings less differentiated.

$\text{♀}$ , 56 mm. Closely similar to  $\sigma$ .

Mentawi : Sipora I., October 1924 (C. Boden Kloss and N. Smedley), 3  $\sigma\sigma$ ,

1 ♀. A rather large ♂ taken at Padang, W. Sumatra, November 1924, seems to agree exactly, but examples from the Bovenland and as far as Korintji apparently differ at least racially.

*E. semirosea* Warr. (Nov. Zool. iv. 29) differs from *rosalia* (Stoll) in almost exactly the same structural respects as does *smedleyi*, and it is not improbable that the last-named, as well as *marginata* Prout (1920) and a number of unnamed forms which are being gradually extricated from *rosalia*, may belong subspecifically to *semirosea*; cfr. *Treubia*, vii. 429. On account of the relatively somewhat shorter hindtarsus of the ♂ I have given to *smedleyi* the provisional status of a species, but the distinction, even if constant, is perhaps too slight to confirm it; in any case the name will be required as racial.

### 5. *Derambila lumenaria* (Hb.-Geyer).

*Arrhostia lumenaria* Hb.-Geyer, *Zutr. Exot. Schmett.* iv. 35, f. 757-8 (1832) ("N. America" [? Java]).

Batu Is.: Pullu Tello (H. H. Karny, C.B.K. and N.S.), 11 ♂♂, 4 ♀♀.

Widely distributed and very constant—Ceylon, India, Malay Peninsula, Hainan, W. China, Philippines, Borneo, Banka, Sumatra, Nias, Java; not hitherto known from the Batu Islands.

### 6. *Noreia ajaia* (Walk.).

*Timandra ajaia* Walk., *Journ. Proc. Linn. Soc. Lond. Zool.* iii. 195 (1859) (Singapore).

*Noreia perdensata* Walk., *List Lep. Ins.* xxiv. 1092 (1862) (Ceylon).

Siberut I., 3 ♂♂, 9 ♀♀.

The nomenclature adopted in "Seitz" (xii. 37) is inaccurate. Walker's type ♀ of *perdensata* is, I am now convinced, conspecific with *ajaia*, the only ♂ form yet known to me from Ceylon. The comparatively rare N. Indian species with simple structure ("*perdensata* Walk.," Prout, *loc. cit.*, *err. det.*) is thus left without a name. *N. ajaia* is widely distributed from Ceylon to Hainan, the Malay Peninsula, Borneo, Java to Timor, etc. I have seen one specimen from Nias but have no record for Sumatra, where it must surely occur. It has not yet been separated into races, although I believe this may prove possible.

### 7. *Noreia unilineata* (Walk.).

*Decetia unilineata* Walk., *List Lep. Ins.* xxxv. 1557 (Sumatra).

Siberut I., 1 ♂.

Only definitely known from Sumatra, Singapore and Borneo.

### 8. *Noreia achloraria* (Warr.).

*Panulia achloraria* Warr., *Nov. Zool.* i. 373 (1894) (Celebes).

Siberut I., 1 ♂.

Apart from a good series from S. Celebes (the type locality), I know only a few odd specimens from Sarawak, Singapore and Sumatra. As with *ajaia*, it is awaiting adequate material for an elucidation of the geographical variation.

### 9. *Alex palparia niasica* Swinh.

*Alex niasica* Swinh., *Ann. Mag. Nat. Hist.* (8) xix. 416 (1917) (Nias).

Siberut I., 1 ♂, 2 ♀♀.

So far as can be judged from a single Nias ♀ and these three specimens, there

is no occasion to erect a new race. The species has a moderately extensive range—N. India, Hainan, Malaya, Palawan, Borneo, Java, Bali.

SUBFAM. **HEMITHEINAE.**

10. **Dysphania subrepleta irrepleta** subsp.n.

♂, 68 mm.; ♀, 65 mm. Closely similar to *D. s. nias* Prout (Nov. Zool. xxiii. 195, Nias I.). Smaller, of a very slightly deeper yellow (yet not quite reverting to that of *s. subrepleta* Walk., etc.); forewing with the white spot just outside the cell not definitely continued behind  $R^2$ ; hindwing with some of the black spots less heavy, at least in the apical region, where a yellow spot remains in front of  $SC^2$  between the postmedian and terminal spots.

Siberut I., 1 ♂, 1 ♀. A still smaller ♀ from Sipora I. is curiously short- and broad-winged—almost a malformation.

11. **Dysphania transducta transducta** (Walk.).

*Euschema transducta* Walk., *Journ. Linn. Soc. Lond. Zool.* vi. 94 (1861) (Sarawak).

Sipora I., 7 ♀♀.

This is perhaps a separable race. All the seven lack the central part of the yellow subterminal band of the hindwing, not only on the upperside (where it appears in the frequent ♀-ab. *affluens* Bastelb. 1905—cfr. *Seitz Macrolep.* xii. 66) but even, except for occasional very slight traces, on the underside; the yellow apical spot of that wing, on the other hand, is present on all the seven. The only Batu I. ♀ known to me belongs—like most Nias and a good many Sumatra ♀♀—to the form *affluens*. But as forms analogous to the Sipora ♀♀ occur sporadically on Sumatra and even on Borneo, I have not thought it safe to erect a race until the ♂ is to hand. *D. transducta* is generally common from Nias to Borneo and is moderately variable everywhere.

12. **Agathia klossi** sp.n.

♂, 35 mm. Close to *aequisecta* Swinh. (1906, Java) and *rubrilineata* Warr. (1896, N. Borneo), the three presumably forming a collective species which, again, may represent *visenda* Butl. (1880, N. India) in the Malayan subregion. Considerably smaller than *aequisecta*. Abdomen dorsally, after the narrow basal brown band, more extensively green. Wings with the dark markings narrower, less conspicuously edged with white; forewing with oblique central band very slender, almost threadlike, the outer band anteriorly (where it borders the large green subapical patch) scarcely consisting of more than a pale line edged proximally by a very dark and distally by a less dark (more reddish) brown one, at  $R^2$ – $R^3$  moderately and at  $M^2$ – $SM^2$  rather shallowly outcurved; hindwing also with the outer band narrowed, a small inlet of green at its hinder end. Underside with the markings narrower and more dusky than in *aequisecta*.

Mentawi Is.: Siberut, September 1924 (C. Boden Kloss and N. Smedley), 1 ♀.

13. **Doocobia puncticostata quantula** subsp.n.

♂, 35 mm. Smaller than name-typical *puncticostata* Prout (*Ann. Mag. Nat. Hist.* (9) xi. 305, 1923, Selangor). Forewing scarcely so deeply emarginate between the apex and  $R^3$ , the dark ternal spot rather smaller, at the termen not reaching  $M^1$ . Hindwing with the tail slightly shortened.

Mentawi Is. : Siberut, September 1924 (C.B.K. and N.S.), 1 ♂.

*D. p. puncticostata* is now known, practically without variation, from N. Borneo (Kinabalu) as well as the type locality ; thus it can hardly be doubted that we have here to do with a new race.

#### 14. *Ornithospila succincta* Prout.

*Ornithospila succincta* Prout, *Nor. Zool.* xxiv. 295 (1917) (Penang).

Sipora I., 1 ♂ (C.B.K. and N.S.) ; N. Pagi I., 3 ♀♀ (Dr. H. H. Karny).

Must be widely distributed but much overlooked ; besides specimens from Malaya and Borneo, I have seen one from Mindanao.

#### 15. *Thalassodes veraria* Guen.

*Thalassodes veraria* Guen., *Spec. Gén. Lép.* ix. 360 (1858) (Australia ? [? Java]).

Siberut I., 1 ♂.

The species which is assumed to be Guenée's *veraria* (closely like the following but with the face green, not reddish) is known from Java, Sumatra, Banka I., Borneo, the Moluccas, etc., and probably represented in N. India by *aucta* Prout (1912) and in Papua by *flavifimbria* Warr. (1912).

#### 16. *Thalassodes quadraria* Guen.

*Thalassodes quadraria* Guen., *Spec. Gén. Lép.* ix. 360 (1858) (Central India ? Australia ?).

Sipora I., 1 ♂ ; ? Siberut I., 1 ♀ (rather large, worn).

This is another conventional determination which remains unverifiable, Guenée's type ♂ being lost. The species before us (hindtibia of ♂ not dilated, face red, abdomen without white dorsal line, hindwing more angled than in *semihyalina* Walk. 1861) is fairly common in Ceylon, India, Malaya and Sumatra and straggles into Borneo, the Philippines and even Celebes.

#### 17. *Prasinocyma floresaria* (Walk.).

*Geometra floresaria* Walk., *List Lep. Ins.* xxxv. 1604 (1866) (Flores).

Sipora I., 1 ♂.

This species seems to be distributed throughout the greater part of the Indo-Australian Region from Assam at least as far as the D'Entrecasteaux and Louisiade Archipelagos, presumably in a number of races ; but whereas *oxycentra* Meyr. (1888, Queensland, assumed to include also the forms from New Guinea and its islands) is well known, the more western ones are singularly scarce, generally obtained singly and in bad condition, so that nothing further is possible than to employ Walker's name for them collectively. The Tring Museum has four from the Khasis, one from Borneo, one from Luzon and one from Celebes.

#### 18. *Hemithea* (?) *insularia* Guen.

*Hemithea insularia* Guen., *Spec. Gén. Lép.* ix. 385 (1858) (Borneo).

Sipora I., 1 ♀, in rather poor condition.

More or less typical *insularia* are known from Nias, Java, Borneo and the Philippines ; races (or close allies) from Assam, New Guinea and Fergusson Island. The Mentawi ♀ seems to have the terminal line and blotches very weak and may well represent a subspecies or species.

19. **Pamphlebia rubrolimbraria** (Guen.).

*Amaurinia rubrolimbraria* Guen., *Spec. Gén. Lép.* ix. 386 (1858) (Ceylon).

Siberut I., 2 ♀♀.

Very widely distributed and scarcely variable except in size. Assam, the Shan States, Hainan, Formosa, the Philippines, Borneo, Sumatra, Java, Timor, Queensland, Salawati, New Guinea, etc. The form from the Bismarek Archipelago, *interrupta* Bastelb. (*Ent. Zeitschr. Stuttg.* xxi. 217, 1908), with the terminal line slighter and interrupted, is the only one which I can yet discriminate as racial; *zebrinata* Th.-Mieg (*Miscell. Ent.* xxi. 39, 1915), founded on a single ♂ from "New Guinea" in poor condition, and said to differ in showing about five darker green lines, may be a separate species, as its author assumed, or may through its condition have acquired a deceptive aspect.

## SUBFAM. STERRHINAE.

20. **Anisodes (?) alienaria** Walk.

*Anisodes alienaria* Walk., *List Lep. Ins.* xxvi. 1586 (1862) (sine loc. [? Malaya]).

Siberut I., 1 ♀.

I see no obstacle to this determination except the geographical and should not have inserted a query but that undoubted *alienaria* is only as yet recorded from a few localities in the Malay Peninsula, and that the ♀♀ in this genus are notoriously difficult to place with certainty, even those of ♂♂ which have quite notable differences in structure being sometimes almost indistinguishable.

21. **Anisodes flavispila flavispila** (Warr.).

*Perixera flavispila* Warr., *Nov. Zool.* iii. 312 (1896) (Khasia Hills).

Siberut I., 1 ♀.

Only two races of this widely distributed species are yet recognized, though others will probably have to be added. The name-typical series (or approximately typical) with relatively large cell-spot of the hindwing, is found from Sikkim and Assam through Burma and Tonkin to Hainan and Hong Kong, also in the Malay Peninsula and (a slight modification) in N. Borneo. A slightly more grey-powdered form, with the cell-spot of the hindwing very small, inhabits the coastal regions of New Guinea, Fergusson Island and Queensland, and has been named *lophosceles* Turn. (1908). An odd specimen from Sambawa and another from Sumba are nearer to *f. flavispila* in tone, to *f. lophosceles* in the reduced cell-spot. The Mentawi ♀ seems to agree perfectly with *f. flavispila* except that it is rather small; but it is not very fresh.

22. **Anisodes nesidica** sp.n.

♂♀, 24–28 mm. Face rosy, edged laterally (except upper part) with whitish. Palpus slightly darker, beneath and at extremities of joints whitish; terminal joint in ♂ half or slightly over, in ♀ nearly one. Hindfemur of ♂ with slightly curled red tuft at end (section *Perixera* Meyr.), tibia with a pair of unequal spurs.

*Forewing* not broad, termen almost smooth; areole wanting; light pinkish cinnamon or light vinaceous cinnamon, with pink irroration; costal margin more tinged with olive or greyish; a small black-mixed cell-dot; lines rosy, indistinct, the postmedian marked with distinct darker dots or minute dashes

on the veins; antemedian curved, rather strongly oblique posteriorly; median shade fairly broad, mostly almost parallel with termen, but incurved in posterior half; postmedian forming a gentle curve between costa and  $R^2$ , about 3–3.5 mm. from termen, then sharply interrupted outward, so that the dot on  $R^2$  is twice as near the termen, thence rather more oblique than termen, with a faint inward curve; a suggestion of a paler area between median and postmedian, especially in its broader posterior half; a weak pale subterminal defined by pinkish shades; small vein-dots at termen and rather less small ones between them (slightly more proximal); fringe almost unmarked.—*Hindwing* not broad, termen waved and curved in anterior half, less curved in posterior; eoneolourous with forewing; markings similar; cell-dot larger, sometimes forming a minute ring; postmedian with the dash on  $R^2$  considerably more proximal than the rest of the series.

Underside paler, especially the hindwing; markings reproduced in pink; cell-dot of forewing usually a little larger or longer, that of hindwing reduced.

Mentawi Is.: Siberut (C. Boden Kloss, N. Smedley and H. H. Karny), 14 ♂♂, 20 ♀♀, type in coll. Tring Mus. Also 1 ♂, 2 ♀♀ from Sipora I. from the same collectors, 1 ♂ from N. Pagi I. (Dr. H. H. Karny) and 2 ♂♂ from Langkawi I., 15 April, 1928 (H. M. Pendlebury).

Nearest to *obliviaria* Walk. (*List Lep. Ins.*, xxii. 643), but smaller, narrower-winged, different in colour—including the face, which in that species is whitish in an extended lower part—and in the very much smaller cell-mark of the hindwing.

### 23. *Scopula eulomata* (Snell.).

*Acidalia eulomata* Snell., *Tijd. Ent.* xx. 42, t. 3, f. 21 (1877) (Java).

*Craspedia compressaria* Warr., *Nov. Zool.* vii. 103 (1900) (Bali) (syn. nov.).

Batu Is.: Pullu Tello, November 1924 (H. H. Karny), 1 ♂.

Previously known from Sumatra and Nias in addition to the type localities cited above.

### 24. *Scopula nesciaria* (Walk.).

*Acidalia nesciaria* Walk., *List Lep. Ins.* xxii. 750 (1861) (Ceylon).

Mentawi Is.: Siberut, 1 ♂, 2 ♀♀. ? Batu Is.: Pullu Tello, 1 ♀ (worn).

In this exceedingly difficult and little-worked group the determination, even of the good specimens, must be received with some reservation. Besides the indubitable Indian material I have placed here provisionally specimens from the Malay Peninsula, Luzon, Borneo, Java, Bali and even Sambawa and Sumba, which seem to agree perfectly in structure though they will probably constitute at least a number of races. The Siberut form, to judge from the ♂, which is in beautiful condition, is very closely like some from N. Borneo and Pulo Laut.

### 25. *Scopula actuaria* (Walk.).

*Acidalia actuaria* Walk., *List Lep. Ins.* xxii. 752 (1861) (Ceylon).

*Ptychopoda nigranalisis* Warr., *Nov. Zool.* iii. 378 (1896) (Timor) (subsp. ?).

*Craspedia parumnotata* Warr., *Nov. Zool.* v. 19 (1898) (Java) (subsp. ?).

Siberut I., 13 ♂♂, 12 ♀♀; Sipora I., 3 ♂♂.

Found almost everywhere from India to Formosa, the Philippines and the Moluccas and, in a form which I have endeavoured to keep separate, from Java to Wetter and Timor (*vide* Nov. Zool. xxvii. 296). Several of the Mentawi specimens incline somewhat to the *nigranalisis* form.



26. *Sterrhia marginata* (Swinh.).

*Hyria marginata* Swinh., *Tr. Ent. Soc. Lond.* 1894, p. 182 (1894) (Cherrapunji).

Siberut I., 1 ♂.

Small and with the termen of the hindwing scarcely so noticeably bent as usual. On the other hand most of the material yet known to me (Tonkin, Penang, Selangor, Andamans, Sumatra, Java, Borneo) agrees very accurately with the name-typical race. Possibly we have to do with a separate, though very closely allied species.

## SUBFAM. LARENTIINAE.

27. *Eois versata* (Walk.).

*Hyria versata* Walk., *List Lep. Ins.* xxii. 667 (1861) (Sarawak).

Siberut I., 2 ♂♂, 1 ♀.

A scarce or much overlooked species, hitherto only known from a few Borneo specimens.

28. *Eois plumbacea* (Warr.).

*Pseudasthena* (?) *plumbacea* Warr., *Nov. Zool.* i. 396 (1894) ("New Guinea" [? Borneo]).

Siberut I., 1 ♂, 2 ♀♀.

Very likely a race, with the buff postmedian spot between the radials very poorly developed. But as this can also become obsolescent in the Borneo forms which I take to be topotypical (the labelling of the single specimen from which Warren described must almost certainly have been erroneous), confirmatory material, and in better condition, is to be desired. Occurs also in the Malay Peninsula.

29. *Pomasia vernacularia* Guen.

*Pomasia vernacularia* Guen., *Spec. Gén. Lép.* ix. 427 (1858) (Sarawak).

Sipora I., 1 ♀.

Hitherto best known from Borneo and the Malay Peninsula. I have named a mountain form from S.W. Sumatra *P. v. salutaris* (*Bull. Hill Mus.* iii. 99, 1929), but the less bright name-typical form may be expected from the coastal districts of Sumatra.

30. *Pomasia conferta* Swinh.

*Pomasia conferta* Swinh., *Tr. Ent. Soc. Lond.* 1902, p. 650 (1902) (Pulo Laut).

"*Pomasia vernacularia* Guen." Meyr., *Tr. Ent. Soc. Lond.* 1897, p. 70 (1897) (Pulo Laut).

Siberut I., 1 ♂.

Previously known from Borneo and Singapore.

31. *Pomasia pulchrilinea pulchrilinea* (Walk.).

*Eupithecia pulchrilinea* Walk., *List Lep. Ins.* xxxv. 1675 (1866) (Borneo).

Sipora I., 1 ♀.

Extremely widely distributed, but apparently much overlooked (or rare) in the western part of its range. The Ceylon form *axis* Hmps. (1893) is well known, as also the Khasi *moniliata* Warr. (1898); then come scattered records from Cochin China, Pahang, the Andamans and Borneo, to which are now added the Mentawi Islands; from New Guinea and especially its satellite islands a good deal of material has been brought, while Meek and Eichhorn even found two

specimens in the Bismarek Archipelago—New Hanover and Feni Island off New Ireland.

### 32. *Collix ghosha* Walk.

*Collix ghosha* Walk., *List Lep. Ins.* xxiv. 1249 (1862) (Ceylon).

Siberut I., 1 ♂.

Distributed, especially on the islands, from Ceylon to the Riu-kiu Islands and to the Solomons. As it is nowhere particularly common, it must certainly be very frequently missed by collectors; my list of recorded localities is steadily growing and comprises, up to date, the following: Ceylon, India, Penang, Langkawi I., Tonkin, Riu-kiu Is., Formosa, Talaut, Borneo, Sula Is., Key Is., Timor, Arfak Mtns., Florida I., S. Christoval. Only the extremes have yet received names, the form from the Solomons being *sticticata* Warr (1902); it is not improbable that even *subligata* Warr. (1896, Loyalty Is.) is conspecific.

### 33. *Chloroclystis admixtaria* (Walk.).

*Eupithecia admixtaria* Walk., *List Lep. Ins.* xxiv. 1243 (1862) (Ceylon).

N. Pagi Is. (Dr. H. H. Karny).

Forms which have not been separated from typical *admixtaria* range through India, the Malay Peninsula, Tonkin, Borneo, Celebes, Sambawa, Buru, etc. A smaller and paler form (or very closely related species), *fragilis* Warr. (Nov. Zool. vi, 38, St. Aignan) in the Philippines, Sambawa, Key Is., Dammer, New Guinea, the Louisiades and (perhaps a different race) St. Matthias I. In Queensland the species (or superspecies) is represented by *bryodes* Turn. (*Proc. Linn. Soc. N. Sth. Wales*, xxxi. 694). Evidently many additional records are to be expected and a much more thorough-going analysis will be required.

### 34. *Sauris interruptata* (Moore).

*Remodes interruptata* Moore, *Lep. Coll. Atk.*, p. 270 (1888) (Darjiling; Khasia Hills).

Sipora I., 1 ♂, very much worn.

Excepting from India and Ceylon, very little good material is yet accessible to me and I can make nothing of the races, which I suspect may prove numerous. The Andamans, Malaya, Tonkin, Riu-kiu Islands, Borneo, Sumatra, Nias, Java and Buru are known localities, even if one or another of the closely allied forms which have been found in New Guinea be not a further subspecies. The Sipora example, so far as it can be made out, rather recalls *subfulva* (Warr. 1905), from the Solomons.

## SUBFAM. GEOMETRINAE.

### 35. *Ourapteryx podaliriata* Guen.

*Urapteryx podaliriata* Guen., *Spec. Gén. Lép.* ix. 32 (Bengal).

Sipora I., 1 ♀ (Dr. H. H. Karny).

Distributed in N. India, Malay Peninsula, Natuna Is., Borneo, Sumatra, Java, Bali and Celebes, but rarely common, except perhaps in Borneo. Variation slight.

### 36. *Xeropteryx columbicola media* subsp.n.

♂. Forewing with apex on an average somewhat less produced than in *X. c. columbicola* (Walk., *List Lep. Ins.* xx. 11, N. India), the pale yellow spots

smaller, the central pair better separated by vein  $M^1$ , the anterior one, when at all enlarged, much more extended longitudinally than transversely (in *c. columbi-cola* with the two diameters about equal).

Batu Is. : Pullu Tello, August 1896 (I. Z. Kannegieter), type ♂ and another ; November 1924 (C.B.K. and N.S.), 1 ♂ (worn). The same race—at least in the broad sense, as here understood—also inhabits Nias and Sumatra and probably the Malay Peninsula and even Java and Bali, and has long been awaiting a name. In this inconstant species it is not easy to find definable characters, although geographical variation is undoubtedly considerable ; even the extreme Borneo race (*X. c. simplicior* Butl., *Journ. Linn. Soc. Zool.* xvii. 204) throws a certain percentage of very *media*-like forms, while the ♀♀ of all the races seem closely similar.

### 37. *Pareumelea hortensiata exstinguens* subsp.n.

Forewing with the yellow ground-colour anteriorly (excepting the pale buff costal border) much more uniformly suffused with orange-buff than in *h. hortensiata* (Guen., *Spec. Gén. Léop.* ix. 394, Borneo), in which there is constantly a well-differentiated yellow area ; the yellow spot between  $R^3$  and  $M^1$  obsolete in the ♂. Forewing beneath with the subapical buff more suffused, between  $SC^5$  and  $R^1$  largely obscured by dark irroration.

Mentawi Is. (C.B.K. and N.S.) : Sipora, October 1924, 4 ♂♂, 1 ♀, including the type ; Siberut, September 1924, 1 ♂, 1 ♀.

The sole example from Nias in the Tring Museum (a ♂ from Hill Madjedja, N. Nias) agrees with the Mentawi race, except for the presence of a clear spot in cellule 6 of the forewing (yellow above, more buff beneath). The form from the Batu Is. (Tanah Massa), to judge from 2 ♂♂ and 3 ♀♀ (September 1896, I. Z. Kannegieter) is virtually identical with typical *exstinguens* in the ♀, but the ♂ retains the yellow spot of cellule 3 above and beneath, though much reduced in size. I would include both these races (?) provisionally with *exstinguens*.

*P. hortensiata* is further known from the Malay Peninsula, Bali, Pulo Laut, Palawan and Mindoro.

### 38. *Pareumelea flagrata* (Feld.).

*Eumelea flagrata* Feld., *Reise Novara, Lep. Het.*, t. cxxvii. 39 (1875) (Singapore).

Sipora I., 1 ♂, 1 ♀ ; Siberut I., 1 ♀.

Found in most localities with the preceding (except Mindoro), but also, though sparingly, in Assam, Tonkin and the Andamans. An allied species (*eugeniata* Guen., 1858) represents it in Celebes, the Sula Islands and the Moluccas.

### 39. *Synergia botydaria* Guen.

*Synergia botydaria* Guen., *Spec. Gén. Léop.* ix. 423 (1858) (Borneo).

Sipora I., 2 ♂♂ ; Siberut I., 2 ♀♀. Batu Is. : Tanah Massa, September 1896, 1 ♂ (Kannegieter).

Commonest on Borneo, but known also from the Malay Peninsula, Sumatra and Nias.

### 40. *Synergia (Eugnesia) thamiosticta* sp.n.

♂♀, 36–38 mm. Close to *intensa* Warr. (Nov. Zool. iv. 396, S. Celebes), perhaps a race. Rather smaller and with the forewing perhaps relatively somewhat less elongate costally. Abdomen of ♂ rather less slender and elongate, with the anal tuft less long and less white. Wings more normally coloured than

in Warren's unique type, which, however, is probably a remarkably suffused aberration; further differentiations in consequence difficult to make with certainty. The coarce, in part confluent irroration rather less fiery, more ochraceous-orange, a little dulled by slight greyish suffusion; moderate or rather narrow greyish shades bordering the two lines in the median area and (more macularly) the subterminal proximally; terminal shadings in the ♂♂ (which are more clouded than the ♀♀) somewhat *stronger* than in *intensa* type, more as on the underside, which much approaches that of *intensa* except for having a much heavier postmedian shade. A further distinction may be that the outward tooth of the postmedian is stronger, both above and beneath.

Mentawi Is.: Siberut, September 1924, 2 ♂♂, 3 ♀♀ (C.B.K. and N.S.), including the type, 1 ♂ (H. H. Karny); Sipora, October 1924 (C.B.K. and N.S.), 2 ♂♂, 1 ♀. Batu Is.: Tanah Massa, September 1896, 1 ♂ (I. Z. Kannegieter). Nias, 1 ♂ (Raap).

From *prospera* Prout (*Bull. Hill Mus.* iii. 29, Buru), which also belongs to the same group by wing-shape, antenna, etc., *thamiosicta* differs in having pale marks on tegula and base of abdomen, hindwing more regularly convex, with its postmedian more parallel with termen.

#### 41. *Plutodes cyclaria* Guen.

*Plutodes cyclaria* Guen., *Spec. Gén. Léop.* x. 118, t. xx, f. 3 (1858) (Sarawak).

Sipora I., 1 ♂ (H. H. Karny).

Perhaps a race, the two brown patches on the hindwing well separated. A variable species.

Best known from the Malay Peninsula and Borneo, but reaching Hainan.

#### 42. *Plutodes hilaropa* Meyr.

*Plutodes hilaropa* Meyr., *Tr. Ent. Soc. Lond.* 1897, p. 75 (1897) Pulo Laut).

Sipora I., 2 ♂♂, 3 ♀♀.

The specimens are fairly large and strongly marked, perhaps more like the North Borneo specimen in the Tring Museum than the Nias one. Further known from Selangor and represented on Talaut by the smaller, weaker-marked *tristis* (Swinh., *Tr. Ent. Soc. Lond.* 1902, p. 604).

#### 43. *Hypochoresis binexata* (Walk.).

*Geometra* (?) *binexata* Walk., *List Lep. Ins.* xxvi. 1752 (1862) (Sarawak).

"*Patruissa sternaria* Guen." Warr., *Nov. Zool.* i. 448 (1894) (*err. det.*).

*Patruissa sternaria* ab. *ocellata* Warr., *ibid.* (1894) (Padang [Rengas, Malay Peninsula]) (ab.).

Siberut I., 1 ♀.

A fairly common species in the Malay Peninsula, Sumatra, Natuna Is. and Borneo and not particularly variable. I doubt the authenticity of the two "Assam" examples cited by Warren (*loc. cit.*).

#### 44. *Sabaria spurca* (Swinh.).

*Prionia spurca* Swinh., *Tr. Ent. Soc. Lond.* 1902, p. 608 (1902) (N.E. Borneo).

Sipora I., 1 ♂.

Still very little-known. The Tring Museum possesses a ♀ from Java of a probable race, or very close relative, with brighter coloration.

45. **Sabaria multidentata** (Warr.).

*Prionia multidentata* Warr., *Nov. Zool.* i. 449 (1894) (Nias).

*Prionia excavata* Warr., *Nov. Zool.* iii. 419 (1896) (Nias) (ab.).

North Pagi I., 1 ♀.

Greyer than either of Warren's types, which also differ widely in coloration *inter se* and are both ♀♀; border of hindwing rather ampler. Evidently very variable.

46. **Heterolocha pyreniata** (Walk.).

*Nabla pyreniata* Walk., *List Lep. Ins.* xxxv. 1668 (1866) (Singapore).

Siberut I., 1 ♂; Sipora I., 1 ♀.

Apparently common on Nias, occasional on Sumatra and Java.

47. **Curbia martiata** (Guen.).

*Crocopteryx martiata* Guen., *Spec. Gén. Lép.* ix. 74, t. v. f. 8 (1858) ("India").

Sipora I., 2 ♂♂, 1 ♀.

A rather common species in the Malay Peninsula, Nias, Sumatra, Banka Island, Borneo and West Java. Very constant.

48. **Corymica vesicularia** (Walk.).

*Caprilia vesicularia* Walk., *List Lep. Ins.* xxxv. 1569 (1866) (Sumatra).

Sipora I., 3 ♂♂, 1 ♀.

To the list of localities given in *Bull. Hill Mus.* iv. 138, should be added Banka I., and—on the strength of the present specimens—Mentawi Is.

49. **Corymica latimarginata** Swinh.

*Corymica latimarginata* Swinh., *Ann. Mag. Nat. Hist.* (7) x. 47 (1902) (N. Borneo; Pulo Laut).

Sipora I., 1 ♂, 1 ♀.

For several years after it was first described, no further examples of this species came under my notice. Recently, however, a good many have been received, but almost exclusively from Borneo (once from Selangor). Its occurrence in the Mentawi Islands, in an almost indistinguishable form, is very interesting.

50. **Callerinnys clathraria** Warr.

*Callerinnys clathraria* Warr., *Nov. Zool.* ii. 139 (1895) (Padang [Rengas]).

Sipora I., 1 ♂.

A small and very worn example, possibly representing a separable race. Specimens from Java, however, do not differ appreciably from those from the Malay Peninsula, its headquarters.

51. **Nadagara scitilineata** Walk.

*Nadagara scitilineata* Walk., *List Lep. Ins.* xxiv. 1094 (1862) (Sarawak).

Siberut I., 1 ♀.

The specimen is much wasted, but the determination seems quite safe. A scarce species, with rather scattered distribution, previously known to me only from Perak, Borneo and Hainan, the latter in a browner colour-form which may probably be racial.

52. *Bulonga schistacearia* Walk.

*Bulonga schistacearia* Walk., *Journ. Linn. Soc. Zool.* iii. 193 (1859) (Singapore).

Siberut I., 1 ♀; Sipora I., 1 ♀.

Known from the Malay Peninsula, Nicobars, Nias, Sumatra, Natuna Is. and Borneo, particularly abundant on Nias. Variation slight.

53. *Luxiaria iotaria* (Feld.).

*Semiothisa* (?) *iotaria* Feld., *Reise Novara, Lep. Het.* t. cxxix, f. 26 (1875) (Java).

Siberut I., 1 ♂; Sipora I., 1 ♀.

The ♂ is worn, but seems to have belonged to the form—not uncommon in that sex—in which the characteristic blackish mark of DC of the forewing is almost entirely obsolete; even the dark costal spots can never have been strong. The ♀ is not much irrorated, the cinnamon-buff shade outside the postmedian clear, the costal spots brown, not much mixed with black.

Not common, best known from Java, Selangor and several localities in Borneo; the Tring Museum has one each from Nias and Banka Is.

54. *Luxiaria exclusa* (Walk.).

*Hemerophila* (?) *exclusa* Walk., *List Lep. Ins.* xxi. 320 (1860) (Hindustan).

Siberut I., 1 ♂.

The specimen is torn and with the forewing much rubbed anteriorly, but seems to have the costal maculation very weak and in other respects certainly belongs to the brown-banded form, with rather blunt tail to the hindwing, which is generally associated with the ♀. The species is very variable and may prove to contain, as at present constituted, some extraneous elements. Very widely distributed (cf. *Bull. Hill Mus.* iv. 139); only the forms (or closely allied species) *L. e. perichila* Prout (*Treubia* vii. 452, t. ix. f. 8, Buru), covering the Moluccan, Papuan and Queensland series and even provisionally those from the Bismarcks and Solomons, and *L. sesquilinea* Prout (*Ann. Mag. Nat. Hist.* (10) vi. 695, Fiji) have yet been definitely differentiated.

55. *Luxiaria (Eutoea) heteroneurata* (Guen.).

*Cassyma heteroneurata* Guen., *Spec. Gén. Léop.* x. 19 (1858) (Borneo).

Sipora I. (H. H. Karny), 1 ♂.

Distributed, with but little variation, in N. India, Burma, Malaya, Hainan, Nias, Sumatra, Java, Bali, Lombok, Sambawa, Borneo, Mindanao, Celebes, Buru, Amboina, New Guinea and the D'Entrecasteaux. Only in the Bismarcks is it materially modified (*E. h. bismarckensis* Prout, 1926).

56. *Luxiaria schistacea* (Swinh.).

*Calletaera schistacea* Swinh., *Ann. Mag. Nat. Hist.* (7) vi. 309 (1900) (Sarawak).

Siberut I., 1 ♀.

The two or three specimens hitherto known of this rarity were all from Borneo or Selangor. Its occurrence in the Mentawi Islands therefore rivals in interest that of *Corymica latimarginata* Swinh. (*supra*). The specimen is not fresh enough to show whether there is any racial difference.

57. *Calletaera subexpressa* (Walk.).

*Acidalia subexpressa* Walk., *List Lep. Ins.* xxiii. 773 (1861) (Sarawak).

Mentawi Is. : Sipora, 2 ♂♂ (C.B.K. and N.S. ; H. H. Kamy). Batu Is. : Tanah Massa, September 1896 (I. Z. Kannegieter), 1 ♂.

Very variable, no doubt in part geographically, but very little material is yet available—Borneo, Malay Peninsula, Nias, Engano. The only specimen yet known from Engano was named *C. sabulosa* Warr. (Nov. Zool. ii. 132) and seems separable by the broader median line and diffuse cell-mark (not black cell-dot) of the forewing. In the Khasis the representative is sufficiently different in shape to justify Warren's having erected it as a species (*C. angulata* Warr., Nov. Zool. iii. 139). The larger, dusky Formosan *basipuncta* Wileman (*Ent.* xlix. 36), with straighter postmedian line, may also well be a distinct species.

Swinhoe (*Cat. Lep. Het. Oxf. Mus.* ii. 265) is egregiously wrong in citing as a synonym of the present species *Scotopterix paganata* Feld., which is really a synonym of *Luxiaria submonstrata* (Walk., 1861).

58. *Semiothisa emersaria* (Walk.).

*Macaria emersaria* Walk., *List Lep. Ins.* xxiii. 925 (1861) (Hindustan).

Siberut I., 1 ♀.

Like most of the widely distributed and variable *Geometrinae*, this *Semiothisa* merits much closer attention than it has yet received. A few aberrations or subspecies have casually received names, under the impression that they were new species : *translineata* Walk., *List Lep. Ins.* xxxv. 1658, for the Celebes race ; *albidulata* Warr., Nov. Zool. v. 252, for a heavily marked form from Sumba, probably *albibrunnea* Warr., Nov. Zool., ix. 371 founded on a dwarf ♀ from Tenimber, and possibly *isospila* Meyr., *Tr. Ent. Soc. Lond.* 1889, p. 501, from New Guinea and the Bismarcks (in any case " *isospila* Meyr. Sambawa " of Meyrick, *Tr. Ent. Soc. Lond.* 1897, p. 74 = *albidulata* Warr. 1898) ; but nothing systematic has been attempted, unless Warren's brief note in Nov. Zool. iv. 399 can be so regarded. The Tring Museum has material from Ceylon, India, Burma, Andamans, Malay Peninsula, Hainan, S.E. China, Formosa, Luzon, Mindanao, Nias, Sambawa, Sumba, Flores, Timor, Celebes, Amboina and Tenimber, to which can certainly be added Borneo (F.M.S. Mus.), Sumatra and Java (Snellen) and W. China (Mus. Brit.).

The Siberut ♀ is a good deal like the one described by Warren (*loc. cit.*) but with the white subterminal better developed on both wings.

59. *Semiothisa atmala smedleyi* subsp.n.

♂, 26 mm. A good deal smaller than *S. a. atmala* (Swinh., *Tr. Ent. Soc. Lond.* 1894, p. 210, as *Tephрина*), darker, the termen of the hindwing less crenulate, of the forewing not waved. As, however, the structure appears to agree accurately with name-typical Khasi *atmala* and that varies a little in shape, I regard it provisionally as merely a subspecies. A small ♂ from Manipur is somewhat transitional.

Mentawi Is. : Siberut, September 1924 (C. Boden Kloss and N. Smedley), 1 ♂.

Hampson's reference of this species to " *Macaria* " [*Semiothisa* Hb.] (*Faun. Ind., Moths*, iii. 205) is not more accurate than Swinhoe's to *Tephрина* ; it not only contradicts Hampson's own generic diagnosis, having  $SC^1$  and  $SC^2$  of the forewing

both present and free, but the 8th sternite shows no trace of the octavals of the *Semiothisa* group. By Meyrick's system it falls into *Ectropis* (♂ with fovea developed, antenna dentate, with two pairs of fascicles), but until that too comprehensive group has been revised it seems superfluous to make a transference which will have no stability. I suspect it is rather nearly related to "*Alcis* (?)" "*paucisignata* Warr. (Nov. Zool. vi. 348, Perak) = "*Cymatophora*" "*paraphiata* Warr. (Nov. Zool. vii. 196, "British Guiana" [err. loc. !]), each founded on a single ♀, but of which the ♂ has the "*Ectropis*" antenna.

#### 60. *Petelia medardaria* H.-Sch.

*Petelia medardaria* H.-Sch., *Samml. Aussereur. Schmett.*, i, f. 534 (1856); p. 64 (1858) (East India).

Siberut I., 1 ♂ (H. H. Karny).

Found throughout the greater part of the Indo-Australian Region—Ceylon, India, Malaya, Engano, Sumatra, Borneo, Philippines, Celebes, Java, Sambawa, Sumba, Timor, Dammer, Tenimber, Key, Buru, Amboina, Batjan, New Guinea and its islands, Bismarcks, Solomons, Queensland, etc. Everywhere variable.

#### 61. *Hyposidra talaca* (Walk.).

*Lagyra talaca* Walk., *List Lep. Ins.*, xx, 59 (1860) (Celebes; Philippines).

Siberut I., 1 ♀.

Found almost everywhere from India and Ceylon to N. Queensland and the Solomons. Except for some colour variation a rather constant species. The Mentawi ♀ is of the typical dark form, as are also the series from Nias and Sumatra in the Tring Museum.

#### 62. *Fascellina* sp.n.(?)

Siberut I., 1 ♀ (damaged).

Unfortunately not in a fit condition for describing. Evidently in the vicinity of *chromataria* Walk. (1860), but with the shape slightly less accentuated—apparently more as in *albidiscata* Warr. (1894) ♀—with only the anterior part of the forewing coloured similarly to that of *chromataria* ♀, the posterior part, with the whole hindwing, clouded with a dark shade which more recalls the ♂ of *chromataria*. Perhaps the ♀ of a race of a rare species from Penang and Borneo which has not yet been worked out (3 ♂♂ in Mus. Tring).

#### 63. *Ophthalmodes exemptaria* Walk. (?).

*Ophthalmodes exemptaria* Walk., *List Lep. Ins.*, xxi, 447 (1860) (Sarawak).

*Ophthalmodes suppressaria* Walk., *List Lep. Ins.*, xxxv, 1695 (1866) (Singapore).

Siberut I., 1 ♂.

Rather large and apparently with rather heavy band-like shadings accompanying the postmedian, but worn and torn. The variation of this species, which I believe occurs also on Penang and Sumatra, has not yet been satisfactorily worked out, the material received hitherto having been always very scanty. I cannot think that *clararia* Walk. (1866), from Java, cited by Swinhoe (*Cat. Lep. Hel. Oxf. Mus.*, ii. 284) as a further synonym, is really conspecific.



64. *Cleora repetita* (Butl.).

*Boarmia repetita* Butl., *Ann. Mag. Nat. Hist.* (5) x. 232 (1882) (Duke of York I.).

Sipora I., 1 ♂.

On the synonymy, variation and geographical range of this extremely widely distributed species see *Bull. Hill Mus.* iii. 186-7. Mindanao should be added to the localities, a fine series having been obtained by the late Mr. A. E. Wileman from Kolambugan, Lanao plains.

65. *Cleora injectaria fuliginosa* (Warr.).

*Chogada fuliginosa* Warr., *Nov. Zool.* i. 436 (1894) (Engano).

Siberut I., 1 ♂, 1 ♀ (C.B.K. and N.S.); Sipora I., 1 ♂, 1 ♀ (H. H. Karny).

I have provisionally (*Bull. Hill Mus.* iii. 212) referred these to the very dark Engano race of *injectaria*, but pointed out that the hindtarsus of the ♂ appeared relatively somewhat longer. It is not improbable that further material and closer investigation may show them to be a separate race or even—judging from the richness of this group in species—a separate species. *C. injectaria* is, however, the most widely distributed of all the *alienaria* "group" (Ceylon and India to Fiji, with an endemic development on the Samoan and Friendly Islands), and on the whole one of the best differentiated; see my revision already cited.

66. *Serraca spissata* Warr.(?).

*Serraca spissata* Warr., *Nov. Zool.* vi. 56 (1899) (Nias).

Siberut I., 1 ♀ (very worn).

May equally well represent *costaria* (Guen., *Spec. Gén. Lép.* ix. 242, Sarawak), which is distinguishable chiefly by ♂ characters, or even some other *Serraca*. Both the species cited are best known from the Malay Peninsula and Borneo, *costaria* also from Mindanao, Sumatra and Java; but the occurrence of *spissata* on Nias renders it a probable determination.

67. *Arycanda simulans* (Butl.).

*Panaethia simulans* Butl., *Ann. Mag. Nat. Hist.* (5) xiv. 35 (1884) (Nias).

Siberut I., 1 ♀.

Common on Nias, rarer on Sumatra, the only other hitherto-known locality.

68. *Arycanda maculosa* Walk.

*Arycanda maculosa* Walk., *List Lep. Ins.* vii. 1775 (1856) (Sumatra).

Batu Is.: Tanah Massa (I. Z. Kannegieter), 2 ♀♀. Mentawi Is.: Siberut, 1 ♂, 2 ♀♀; Sipora, 3 ♀♀.

Previously known from Nias, Sumatra, the Malay Peninsula and Borneo.

69. *Genusa bigutta* Walk.

*Genusa bigutta* Walk., *List Lep. Ins.* iv. 818 (1855) ("North India" [? Burma]).

Sipora I., 1 ♂ (C.B.K. and N.S.); Siberut I., 2 ♂♂, 1 ♀ (C.B.K., N.S. and H.H.K.).

All the specimens are heavily spotted, but they are too variable in detail to present any concrete characters for the erection of a race. Burma, Malay Peninsula, Sumatra and Borneo; with races (?) on Hainan and the Philippines (with Sulu Archipelago).